

LAWLER, METZGER & MILKMAN, LLC

ORIGINAL

1909 K STREET, NW  
SUITE 820  
WASHINGTON, D.C. 20006  
PHONE (202) 777-7700  
FACSIMILE (202) 777-7763

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November 12, 1999

BY HAND

Magalie Roman Salas, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W. - Suite TW-A325  
Washington, D.C. 20554

RECEIVED  
NOV 12 1999  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: WT Docket No. 99-168  
*Ex Parte Presentation*  
Service Rules for the 746-764 and 776-794 MHz Bands,  
And Revisions to Part 27 of the Commission's Rules

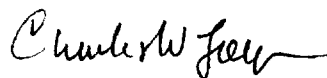
Dear Ms. Salas:

On November 10, 1999, Mike Farmwald and Arvin Shahani of FreeSpace Communications, Ruth Milkman and Charles Logan of Lawler, Metzger & Milkman, and Janice Obuchowski of Freedom Technologies, Inc. met with Commissioner Susan Ness and Mark Schneider; Commissioner Furchtgott-Roth and Bryan Tramont; and Peter Tenhula of Commissioner Powell's office. On November 12, 1999, Mike Farmwald, Arvin Shahani, Ruth Milkman, Charles Logan, and Janice Obuchowski met with Adam Krinsky of Commissioner Tristani's office, Kathy Brown, the Commission's Chief of Staff, and with Howard Shelanski, the FCC's Chief Economist.

In these meetings, FreeSpace Communications discussed its proposal for licensing spectrum for commercial services in the 746-764 and 776-794 MHz bands. That proposal is described in letters filed with the Commission on October 13, 1999 and November 8, 1999, and also in a written *ex parte* presentation, dated November 10 & 12, 1999, that was handed out during the meeting and that is enclosed with this filing. We also discussed FreeSpace's position, as described in the enclosed letter to Mr. Sugrue dated October 27, 1999, regarding a proposal by Motorola, Inc. to set aside a portion of these bands for exclusive private radio use. Copies of other documents handed out during these meetings are attached.

Pursuant to section 1.1206(b)(1) of the Commission's rules, 47 C.F.R. § 1.1206(b)(1), an original and one copy of this letter and enclosure are being provided to you for inclusion in the public record of the above-referenced proceeding.

Sincerely,



Charles W. Logan

No. of Copies rec'd 041  
List ABCDE

Enclosures

cc:

Commissioner Susan Ness

Kathy Brown

Bryan Tramont

Adam Krinsky

Commissioner Furchtgott-Roth

Mark Schneider

Peter Tenhula

Howard Shelanski

# FREESPACE COMMUNICATIONS

*Ex Parte Presentation*

November 10 & 12, 1999

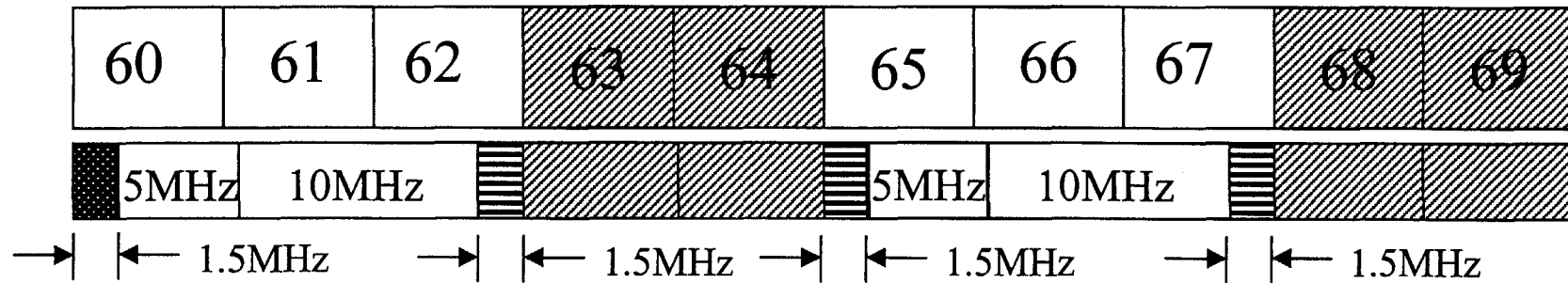
Service Rules for 746-764/776-794 MHz Bands

WT Docket No. 99-168

# Overview

- FreeSpace's proposal will facilitate new, innovative broadband services to consumers, including those living in underserved areas.
- FreeSpace's proposed band plan provides maximum interference protection to public safety communications.
- The FCC should *not* set aside guard bands for exclusive private radio use.

# FreeSpace Communications Channels 60-69 Proposal



**License four 1.5MHz, paired channels *with no use restrictions* for innovative, low power uses that protect public safety band:**

▤ 4mW/kHz    ■ > 4mW/kHz

▨ Public Safety

**License remaining 30MHz for higher powered mobile and fixed wireless services:**

□ Two paired 5MHz bands and two paired 10MHz bands for mobile & fixed wireless services

# Providing Maximum Protection for Public Safety

- Creates low power *guard bands* around public safety spectrum
  - Clear, effective way to protect both current *and future* public safety uses
  - FreeSpace system will comply with any out-of-band spurious emissions limits necessary to protect public safety operations
- Superior to private radio guard band proposal, which relies on coordination efforts rather than power limits
  - Coordination is cumbersome and will not adequately protect *future* public safety facilities
- FreeSpace is working with public safety representatives regarding its proposal

# Consumer Benefits

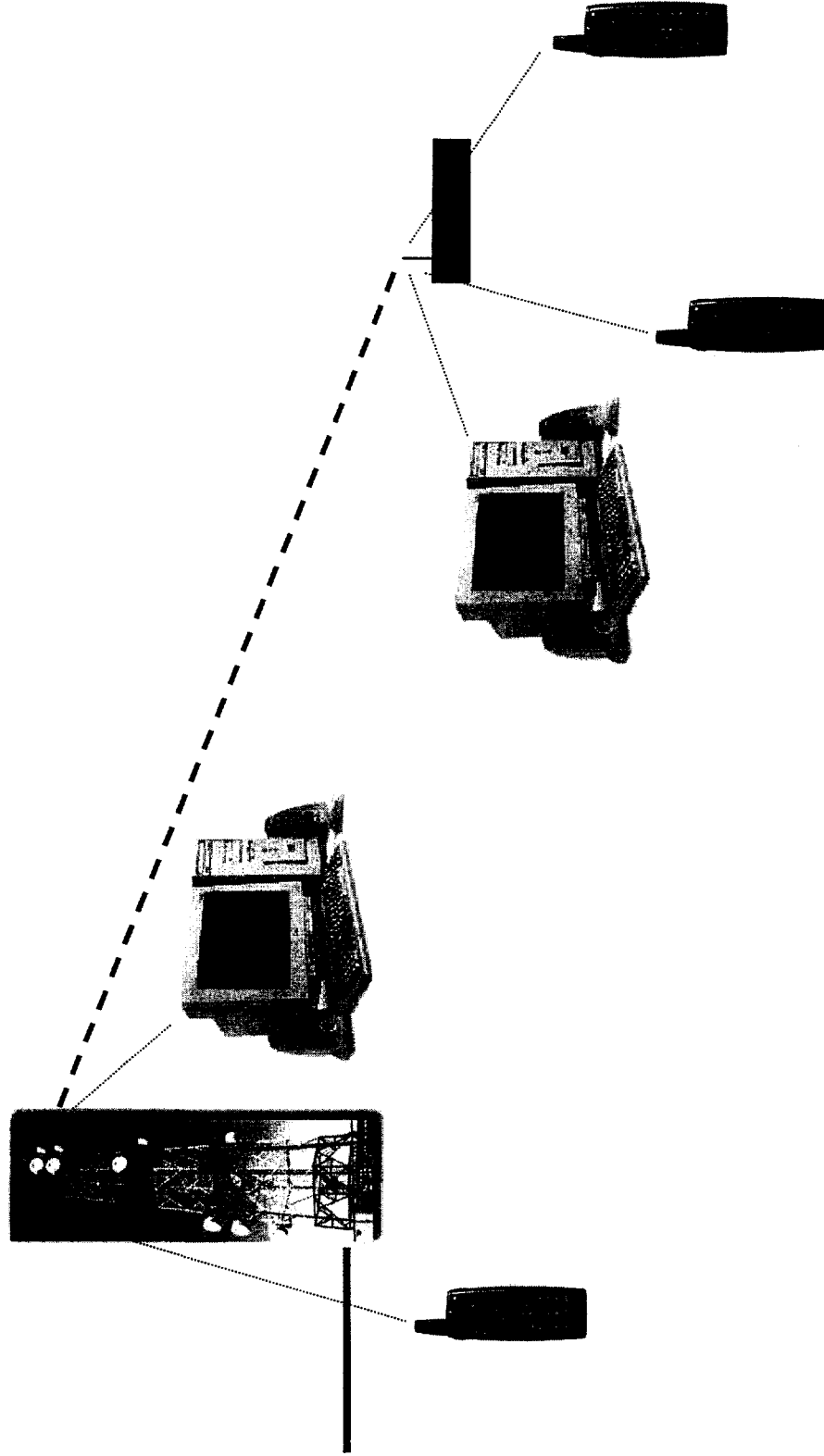
- Proposed band plan supports *new, innovative* uses of spectrum such as FreeSpace system, which will offer consumers inexpensive broadband internet access (up to 2 Mbps) and voice services.
- FreeSpace technology involves significantly lower infrastructure, equipment and maintenance costs, which means *less expensive* wireless services for consumers.
- FreeSpace system will extend wireless and internet services to *underserved communities*.

# FreeSpace Technology

- An inexpensive, organic, broadband wireless communications network
  - Inexpensive
    - Infrastructure is significantly less expensive than existing systems
  - Organic
    - Network is exceptionally flexible, dynamic and self-configuring
    - Spectrum use is on-demand, rather than planned
  - Broadband
    - Extends and integrates seamlessly with the internet
    - Supports high data rate services



# Network Architecture



## **Serving Underserved Areas: Tribal Lands Example**

- A reservation might have:
  - Population 150,000, 76% without phone service
  - 25,000 square mile area
    - 5 locations w/ more than 2000 people
    - 30 locations w/ more than 20 dwellings
  - Median family income ~ \$15,000 / year
- High infrastructure costs for existing wireline and wireless systems deter service to such sparsely populated areas.

# The FreeSpace Solution

- FreeSpace technology significantly reduces infrastructure costs, making it possible to offer affordable wireless voice and data services for the entire underserved area.
  - Inexpensive equipment for wireless voice & data cells
    - Powered entirely by solar panels / batteries
  - Connectivity between cells
    - Aggregate service to a few access points
- FreeSpace will:
  - Offer service directly, with build-out commitment, or
  - License technology and spectrum to a local provider, thereby encouraging self-determination.

# Nationwide Licensing and Bidding Credits

- License the eight 1 MHz, paired channels (with a minimum of 14 MHz separation) on a *nationwide basis*.
  - Provides for a ubiquitous, wireless network.
  - Promotes economies of scale.
    - Lowers the cost of serving rural or sparsely populated areas.
  - Received strong support in comments.
  - Facilitates interference coordination with existing broadcast stations.
- Adopt the small business definitions proposed in the *NPRM* and use bidding credits to promote small business entry and entrepreneurial innovation.

## **The FCC Should Not Set Aside Spectrum For Particular Uses**

- Section 337(a) requires the FCC to allocate the 746-764/776-794 MHz bands “for commercial use to be assigned by competitive bidding.”
- Exclusive set-aside for private radio, either directly or through band manager concept, is contrary to this statutory directive given well understood distinction between such private uses and “commercial uses.”
- Exclusive set-asides reduce auction revenues and are contrary to strong FCC policy of using auctions and the marketplace to maximize the efficient use of the spectrum.

## FreeSpace Communications

FreeSpace Communications is a company founded in April 1999 for the purpose of developing an innovative wireless communications technology that will deliver exciting new broadband voice and data service to consumers at low cost. Freespace was founded by Mike Farmwald, Tom Lee, Arvin Shahani, and Derek Shaeffer, and is a privately held company located in Silicon Valley.

Mike Farmwald has a long history of success in business, with an extraordinary record of successfully developing cutting edge technologies and turning them into successful businesses. He is one of the world's leading experts in computer science and electrical engineering. Dr. Farmwald is the founder and largest shareholder of Rambus, Inc., which was recently ranked by PC Magazine as one of the 100 most influential companies in the world of computing and the internet. Rambus, a publicly held company with a \$1.6 billion market cap, designs and licenses high performance semiconductor memory devices that increase memory bandwidth. According to PC Magazine Online, Rambus memory "enhances multimedia and streaming applications and will star in the latest and greatest PCs."

In addition to Rambus, Dr. Farmwald has founded several other successful technology companies. These include three companies that were acquired by public companies -- FTL, Inc. by MIPS, Chromatic Research by ATI Technologies, and Epigram by Broadcom -- for a total of slightly less than \$1 billion.

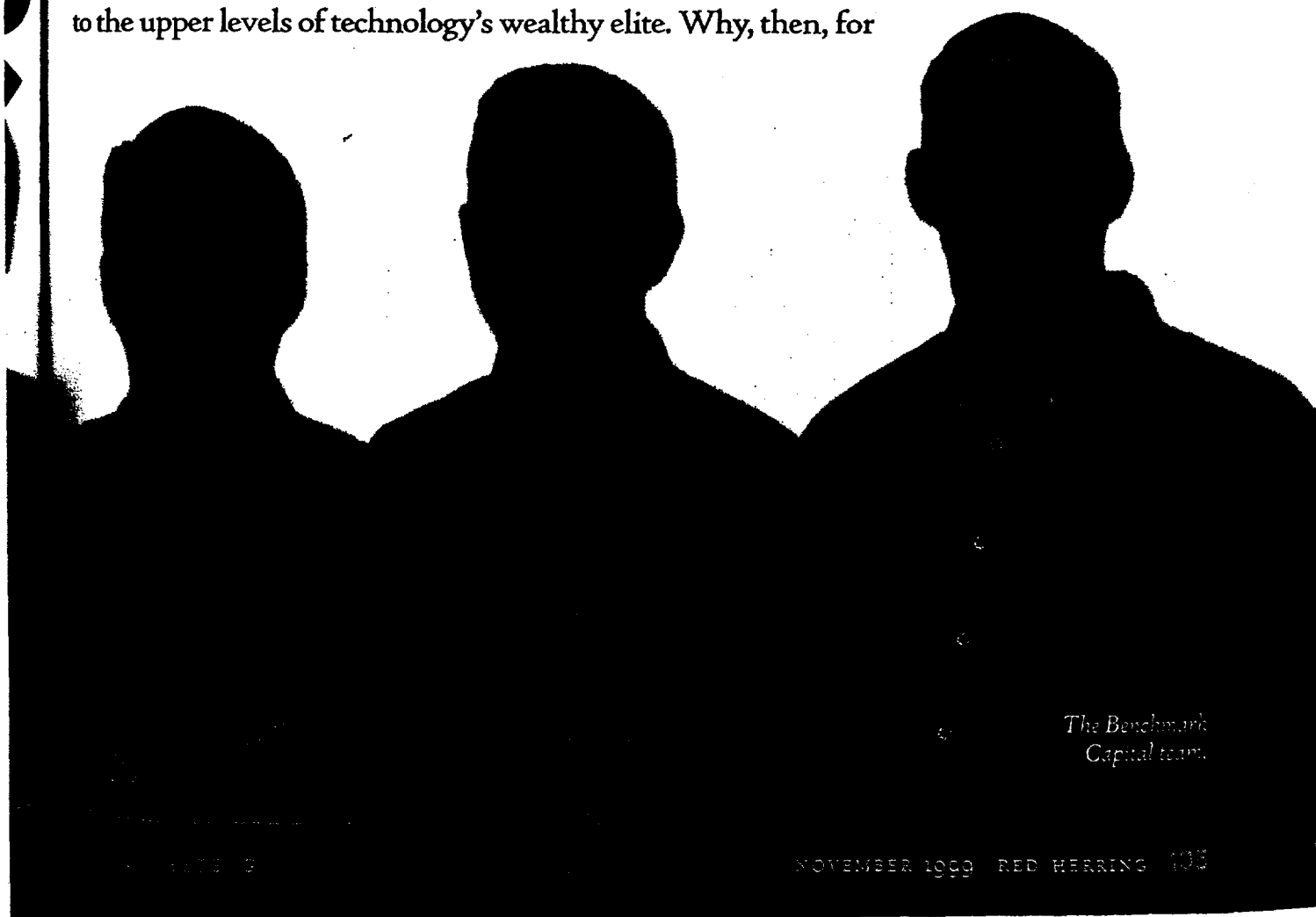
Tom Lee, Arvin Shahani and Derek Shaeffer are preeminent in the field of electrical engineering for their work in radio-frequency (RF) integrated circuit research at Stanford University. Dr. Lee is a professor of Electrical Engineering at Stanford, while both Dr. Shahani and Dr. Shaeffer received their doctorates from Stanford. They have done pioneering work in the young field of CMOS RF, a technology that promises to significantly reduce the cost of radio electronics. As a part of this work, they demonstrated the world's first complete, single-chip CMOS Global Positioning System (GPS) receiver. GPS is a system that provides accurate, mobile navigation services around the world. Single-chip GPS receivers allow GPS navigation capabilities to be embedded into consumer devices, such as cell phones. This capability can, for example, enable cell phones to automatically provide the location of an emergency call to a 911 dispatch center, greatly improving emergency response time.

Professor Lee is also a widely recognized speaker, twice the winner of the prestigious Best Paper award at the International Solid-State Circuits Conference (ISSCC), and the author of a number of academic papers and the first ever textbook on CMOS RF. Dr. Shaeffer is also the author of several academic papers and a book on low-power CMOS radio receivers. Dr. Shahani is also a recognized speaker and winner of the Best Student Paper award at ISSCC.

# In the booming Internet economy, venture firms must offer more than cash if they want to get ahead. BY ANDREW P. MADDEN

**M**IKE FARMWALD is a serial entrepreneur—and a successful one at that. In 1990 he cofounded the semiconductor company Rambus, which now boasts a \$2.2 billion market capitalization (Nasdaq: RMBS). He went on to start three more chip companies, including Epigram, which Mr. Farmwald recently sold to Broadcom for \$316 million. Now, profoundly wealthy and apparently indefatigable, he's working on his fifth startup.

By Mr. Farmwald's own admission, money is no longer a concern. It hasn't been for years. On the strength of the 1997 Rambus initial public offering alone, he was catapulted to the upper levels of technology's wealthy elite. Why, then, for



*The Benchmark  
Capital team.*

## The new VCs

'If one of the companies we're working with has a problem, we want Benchmark to be the first place they call.'

—BILL GURLEY

ROBERT HOUSER

his fifth startup is he accepting money from a venture capital firm? "I certainly don't need VC money," he recently told *Red Herring*, "but I actually like these guys. They're experts at helping you build a company."

The guys to whom he refers are the six partners of Benchmark Capital, a venture firm located on the storied portion of Sand Hill Road that has long been home to most of the capital that feeds Silicon Valley's innovations. Like most

VC firms these days, Benchmark has plenty of money to offer to well-qualified startup companies. The partners are smooth and persuasive deal makers; they have operational expertise, entrepreneurial experience, and extensive contacts—they are, by all appearances, rank-and-file venture capitalists.

However, while Benchmark's location on Sand Hill Road may suggest the same old approach to venture invest-

## JIM BARKSDALE, VENTURE CAPITALIST

*The serial entrepreneur is now backing others.*

VENTURE capitalists used to have a cozy monopoly in Silicon Valley. Most entrepreneurs looking for funding had little choice but to wend their way down Sand Hill Road and start pounding on the doors of VC firms.

But VCs must now compete with the very wealth they helped to create. Now that many members of the first generation of Internet entrepreneurs have taken their winnings and left their companies, heaps of personal

wealth are lying around. Not surprisingly, some of these wealthy entrepreneurs, like Jim Barksdale, the former CEO of Netscape Communications, have decided to back other entrepreneurs by investing in their companies.

In May, he created the Barksdale Group, an investment advisory firm focusing on Internet-services startups. Peter Currie, the former chief financial officer of Netscape, and Quincy Smith, that company's director of investor relations, joined him

to form the group.

The pitch is pretty simple, according to Mr. Smith. "We call it full-service investing. We help with everything from operations advice to recruiting, customer contacts, and strategic partnering," he says. "We've been through it all before." Indeed, at Netscape Mr. Barksdale's management team was among the first to face the challenges of hyper-growth that have become the norm in the Internet era.

After selling Netscape to America Online, Mr. Barksdale says he was prepared for a change of pace. "I didn't want to go into another operating job. I just wanted to invest in companies that I thought had potential," he explains. So far, the Barksdale Group has announced investments in HomeGrocer.com,



**'We happened to hit the market at an incredible time for the venture capital industry.'**

**-ANDY RACHLEFF**

ing, the firm unabashedly claims to be much more than a typical VC firm. "When we created Benchmark, we rewrote the book on venture capital," trumpets the firm's mission statement. "We did away with the organizational bureaucracy of traditional venture firms and created a different kind of partnership that enables us to provide a superior level of service to our entrepreneurs."

With the steady success of the venture capital indus-

try over the past five years, one would hardly think that the venture capital book needs much rewriting. But Benchmark disagrees. Like so many of the dot-com companies it funds, Benchmark believes that by disrupting the tried methods of its own industry, the firm can bring the efficiency and effectiveness of venture capitalists to new heights. In short, Benchmark imagines itself as a service firm that caters to entrepreneurs.

And Benchmark is not alone. Other VC firms, both new and old—from the venerable Kleiner Perkins Caufield & Byers and Institutional Venture Partners (IVP) to the newer "operating firms" like CMGI and the Internet Capital Group (see "Capitalizing on B2B," page 218) that take a controlling interest in startups—have begun to rethink the traditional structure and role of venture capital firms. While the combination of fortuitous market conditions and a revolutionary technology like the Internet has provided high times for the venture industry, it has also raised the level of competition. Money is everywhere. Success is expected. Venture capitalists, if they wish to prosper, must offer more than cash.

## THE GETTING IS GOOD

Why change? Why now? Life has never been so good for venture capitalists and for private companies seeking funding. Venture-backed investments in the second quarter of 1999 reached a record level of \$7.7 billion, obliterating the previous record of \$4.3 billion in the first quarter of 1999, according to the PricewaterhouseCoopers MoneyTree survey. Investment levels rose 104 percent over the \$3.8 billion recorded in the second quarter of 1998. Venture capitalists are putting their money to work like never before.

According to figures from Venture Economics

...the firm unabashedly claims to be much more than a typical VC firm. "When we created Benchmark, we rewrote the book on venture capital," trumpets the firm's mission statement. "We did away with the organizational bureaucracy of traditional venture firms and created a different kind of partnership that enables us to provide a superior level of service to our entrepreneurs."

If that's not a twist on venture investing, then we don't know what is. And speaking of Mississippi, that state's native son was sure to leave us with one of his colorful colloquialisms. "We're just getting started and haven't had to do much selling," he concluded. "It's going to be a lot of fun when we get blowin' and goin'."

—A.P.M.

# The new VCs

'Our investment approach is pretty basic. We try to invest in great people and huge market spaces.'

—KEVIN HARVEY

ROBERT HOUSER

Information Services and the National Venture Capital Association, 96 venture-backed companies completed IPOs in the first half of 1999, raising over \$7.1 billion. These numbers put 1999 on pace to be the biggest year ever in terms of dollars raised by venture-backed companies through the public markets.

But if these numbers reveal anything, it is that entrepreneurs—not venture capitalists—are in the most enviable position. As we stated in our October 1998 cover story, "The New Startup" ([www.redherring.com/59/startup.html](http://www.redherring.com/59/startup.html)), the balance of power has shifted from VCs to entrepreneurs

because of the vast availability of private equity. Even mediocrity can be rewarded with a high valuation and a lofty first round of financing. And not only has the amount of money increased, but the variety of resources that can provide that money has increased too. Angel investors, corporate venture funds, and new kinds of investors like the Barksdale Group (see "Jim Barksdale, Venture Capitalist," page 106) have elevated worthy entrepreneurs to a kind of royal status; they are now in the position of granting audiences to potential funders.

With such change afoot in the relationship between

## FUNDED

Charitableway.com  
Collab.net  
ePage  
EmployeeSavings.com  
ENS

ePhysician  
Epinions.com  
Equinix  
GreatEntertaining.com  
Guild.com

Q.net  
Living.com  
Muse.com  
Nordstrom.com  
PrimeSoftware

Respond.com  
Send.com  
Vstore

## ACQUIRED

Abrizio  
(by PNC Sierra)  
Accept.com  
(by Amazon)

Art.com  
(by Getty Images)  
Encompass  
(by Yahoo)

Epigram  
(by Broadcom)  
Shasta Networks  
(by Nortel Networks)

When.com  
(by AOL)

## IPOs

1-800-Flowers.com  
Ariba  
Ashford.com  
(in registration)

Broadbase Software  
(in registration)  
Critical Path  
E-Loan  
Juniper Networks

Kana Communications  
(in registration)  
NorthPoint  
Communications  
PlanetRx (in registration)

Red Hat  
Scient  
Webvan (in registration)  
Wink Communications

**'Too much mystique is placed upon the VC industry. The mystique should really surround the entrepreneur.'**

**—BRUCE DUNLEVIE**

JAY BLAKESBERG

venture capitalists and entrepreneurs, some VC firms have had the prescience, and daring, to rethink their roles. "Too much mystique is placed upon the VC industry," says Bruce Dunlevie, a partner at Benchmark. "The mystique should really surround the entrepreneur."

Benchmark is, in many ways, one of the prime agents of change in the venture capital industry. Founded in 1995, the firm operates according to two principles: service to the entrepreneur and equal partnership. According to Bob Kagle, another Benchmark partner, these principles may seem obvious, but venture capitalists have not always embraced them. Most firms have been operating with hierarchical structures that place a select number of senior partners at the top of an economic pyramid. Below the senior partners, as in a law firm, there are junior partners and associates, who are granted a much smaller piece of the pie. One of the primary criticisms of this structure is that it can create an environment in which senior partners act as figureheads and underlings tend to the real work of finding new deals and helping to cultivate portfolio companies.

The old structure—if not managed properly—can be tantamount to "a bunch of solo practitioners working under a common shingle," says Ravi Mhatre, a venture capitalist who recently left Bessemer Venture Partners after four years to join Weiss, Peck and Greer, a firm that was founded in 1971 but is attempting to change with the times. According to Mr. Mhatre, the partners of Weiss Peck have not resisted the idea of moving toward a flatter partnership, where everyone shares the workload equally.

### FLATLAND

The notion of flat equality is taken to its extreme by the partners of Benchmark. They all share equally in the prof-

its of the firm. They hire no associates and operate with a lean administrative structure. They view success as a collective endeavor that requires each partner to contribute time and expertise to each investment the firm makes. "We recognize that nobody is an expert in everything," says Benchmark partner David Beirne. "We all grab an oar and get to work."

The partners of Benchmark are so obsessed with the idea of teamwork that they can't discuss their philosophy of venture investing without invoking athletic metaphors. If you wish to photograph any of the Benchmark partners, then you must photograph all of them. They refuse to be presented as anything other than a team.

It's a slick-sounding pitch, but does it work? Most of the entrepreneurs who have worked with Benchmark seem to think so. The firm's Web site ([www.benchmark.com](http://www.benchmark.com)) is a celebration of success and wealth, with effusive quotes from the various CEOs who have gone on to technology stardom. Keith Krach, CEO of the business-to-business e-commerce company Ariba and Benchmark's original entrepreneur in residence, told *Red Herring* that he "was immediately impressed by the esprit de corps of this high-caliber group of people." With Benchmark's help, Mr. Krach and his cohorts were able to build one of the most respected companies of the recent Internet mania, and stage one of the hottest IPOs of 1999 (Nasdaq: ARBA).

Brian Dougherty, another serial entrepreneur who most recently founded Wink Communications and successfully took it public in August (Nasdaq: WINK), says he continues to take investments from Benchmark because "they're a really bright bunch of guys and they're not arrogant."

Karl Jacob, after founding Dimension X, a Java tools company that he sold to Microsoft, was lured away from Redmond recently to become Benchmark's latest entrepreneur in

## The new VCs

**'We recognize that nobody is an expert in everything. We all grab an oar and get to work.'**

**-DAVID BEIRNE**

ROBERT HOUSE

residence. "I know the Valley pretty well and I know a lot of VCs. I'd heard about the Benchmark pitch and thought: 'Yeah, whatever,'" he recalls. "But they're for real and the pitch is true."

Of course, not everyone is convinced that Benchmark has reinvented the wheel. According to one leading venture capitalist, who (predictably) spoke on the condition of anonymity, "It's just a bunch of smoke and mirrors." And given the current bull market, it's difficult to put Benchmark's model to the test. Any VC firm worth its salt is doing well right now. The best way to measure the quality of a business model is to see how it withstands an inhospitable market—a test that Benchmark and many other new firms have yet to take.

But even considering the strength of the current market, Benchmark cannot be lightly dismissed. Though the firm was founded only in 1995, its pedigree can be traced back to some of high tech's biggest successes. Benchmark grew out of two other venture firms: Merrill, Pickard, Anderson & Eyre and Technology Venture Investors (TVI). Andy Rachleff and Bruce Dunlevie were at Merrill Pickard and Bob Kagle was at TVI. These firms helped fund the likes of 3Com, Sun Microsystems, and Microsoft when they were fledgling companies.

The closest things Benchmark has to venture investment rookies are Kevin Harvey, David Beirne, and Bill Gurley. In each case, however, what these men lack in venture investing experience, they compensate for with other professional overachievements. In his early 20s, Mr. Harvey started and sold two successful software companies. At the age of 22, Mr. Beirne started his own executive search firm, Ramsey/Beirne Associates, and by his early 30s he was responsible for bringing James Barksdale to Netscape and Robert Herbold to Microsoft. As for Mr. Gurley, he made a name for himself as one of the first Wall Street analysts to

cover the Internet. While at the Deutsche Morgan Grenfell technology group, this perennially unruffled analyst took Amazon.com public (Nasdaq: AMZN) and issued penetrating and often controversial comments about the companies he covered. Mr. Gurley then served briefly at Hummer Winblad, another well-respected VC firm.

Some have also attempted to pigeonhole Benchmark as a one-deal firm. As the venture backer of online auction site eBay, Benchmark reportedly saw a \$5 million investment blossom into roughly \$2.5 billion. In the ensuing year since the eBay IPO (Nasdaq: EBAY), however, Benchmark's record of IPOs and acquisitions has effectively silenced any grumblings that the firm is a one-trick pony (see table, page 108).

### VENTURE PARTNERING

Old-line venture capital firms have reacted with varying degrees of urgency to the changes in the industry. The most dramatic recent example was the announcement by IVP (founded in 1974) and Brentwood Venture Capital (founded in 1972) that certain partners from each firm would join to create an Internet-focused fund currently code-named Project T-Rex. While certain industry watchers believe the reorganization was brought about by internecine squabbling at the two firms, Geoff Yang, an IVP partner and a member of T-Rex, dismisses the idea. "The venture business has never been better, but we think that all organizations need to reinvent themselves at some point, and the timing is perfect," he says. "We're taking two great brands and leveraging them on the same platform."

Consolidation and focus, Mr. Yang continues, will be the keys to success for venture capitalists. In many ways, he adds, the venture business may ultimately look like the Internet market. Just as countless Internet startups merge or are

## The new VCs

**'The best entrepreneurs don't want to work for anyone. This is why we position Benchmark as a service firm.'**

**-BOB KAGLE**

ROBERT HOU

eventually acquired, many VC firms may join forces in order to operate most effectively.

Another way VCs have shifted their approach is to think of all their separate investments as a united entity. Kleiner Perkins popularized this idea with the Japanese *keiretsu* model: an attempt to create an intertwined family of companies that all help one another succeed. CMGI, the brainchild of the financier David Weatherell, has institutionalized a similar model that views all venture investments as "synergistic." CMGI began as a direct-marketing company in 1968 and has evolved into a holding company that oversees a growing family of Internet companies, all of which are backed by CMGI's venture arm, @Ventures.

The Japanese behemoth Softbank has pursued a similar approach. Masayoshi Son, Softbank's CEO, created Softbank Technology Ventures to help him in his bid to own the Internet. Much like CMGI, Softbank views itself as an über-company that will serve as the unifying force at the center of a broad constellation of Internet companies. The pitch to entrepreneurs is simple: you don't just get our money, you get access to our network of Internet properties.

Another method more recently employed by VCs to broaden their traditional role is to seek partnerships with established companies and help usher their brands into the Internet age. Benchmark made the first high-profile foray into this arena when it announced it would join with Toys "R" Us to create an Internet venture. However, a fundamental difference of opinion over how the partnership would be structured dashed the deal before it ever came to fruition. According to Mr. Kagle, though, the thinking underpinning

the deal was sound. To this end, Benchmark recently announced a similar arrangement with the department store chain Nordstrom, and Mr. Kagle says we can expect three or four more such deals soon.

No amount of strategic shuffling, however, can change the fact that—because money is everywhere right now—VCs are hard-pressed to find the time or resources to invest it all. And there will be fallout, says Arthur Rock, one of Silicon Valley's original venture capitalists, who funded Fairchild Semiconductor and Intel. "A lot of companies are

going to get financed that venture capitalists are not going to be able to spend much time with. As a result, there are

going to be a lot of mistakes made," Mr. Rock cautions. "How many Pet.coms, grocery-type companies, and Marriage.com can there really be?"

Apparently, there can be quite a few. Until the private equity market relents (or entrepreneurs are afflicted by a cataclysmic lack of ideas), the answers to most of the questions facing venture capitalists will remain elusive—and perhaps not even that important. "The bottom line is that the stakes are higher than ever," remarks Mr. Yang of IVP. "It's an opportunity that we might never see again."

Indeed, this era of prosperity for venture capitalists does not appear to be even close to its end. For now, VC firms will continue to be judged primarily by the magnitude of their successes, and not by the infamy of their blunders—for there are relatively few. However, those firms that are currently experimenting with change will likely be better prepared for whatever challenges a waning market may bring. ☉

Write to [andrew@redherring.com](mailto:andrew@redherring.com).

REDHERRING.COM

For links to more information on the new VCs, see

[/vc-new.html](#)

## **FREESPACE COMMUNICATIONS**

### **THE COMMUNICATIONS ACT REQUIRES THE FCC TO ALLOCATE UHF CHANNELS 60-62 & 65-67 FOR "COMMERCIAL USE"**

- The Balanced Budget Act of 1997 amended the Communications Act to require the FCC to reallocate 36 MHz of spectrum, located at UHF Channels 60-62 & 65-67, "for commercial use to be assigned by competitive bidding." 47 U.S.C. § 337(a)(2).
- At the time of the 1997 Act, Congress considered, but rejected, a proposal by Senator Breaux that would have required the FCC to set aside 12 MHz of spectrum that was the subject of the Act for exclusive private radio use. The conference report to the Act encouraged the FCC and NTIA to examine other spectrum bands for possible allocation to private radio, but clearly shows that Congress intended that the spectrum bands covered by the 1997 Act be allocated for "commercial use," *not* private use.
- "Commercial use" and "private use" are established terms of art used by Congress and the FCC. "Commercial use" generally means radio services offered to the public for hire (e.g., PCS and cellular services). "Private use," in contrast, refers to services used by government and business entities to meet their own communications needs (e.g., a taxi company's radio dispatch system).
- The FCC has a pending proceeding (WT Docket No. 99-168) that proposes licensing rules for the 36 MHz of spectrum located at UHF Channels 60-62 & 65-67. The FCC expects to conclude this proceeding this December in order to proceed with the spectrum auction next year. (The recently enacted Defense appropriations bill requires the FCC to deposit the proceeds from this auction by Sept. 30, 2000.)
- Notwithstanding the plain wording of the Act requiring that this spectrum be licensed for "commercial use" and Congress's decision not to set aside spectrum for private radio in the 1997 Act, Motorola and some private radio parties are urging the FCC to set aside 6 MHz of the 36 MHz for private radio use only. Under the Motorola proposal, only private radio band managers would be allowed to bid for this 6 MHz.
- Under Motorola's proposal, entities such as FreeSpace Communications that wish to offer new broadband commercial services to the public would not be allowed to bid for this 6 MHz of spectrum. Motorola has stated in a letter filed with the FCC that it "disagrees" that this spectrum "is appropriate for commercial use" and "that commercial operations, such as the one proposed by FreeSpace, can be accommodated in bands designated for commercial services."
- But the Act has designated the *entire* 36 MHz of spectrum for "commercial use," including the 6 MHz that Motorola has proposed to be set aside for exclusive private radio use. Motorola's proposal thus directly contradicts the statutory language.

- Motorola's proposal, by limiting the potential bidders for this 6 MHz of spectrum to private radio band managers, would also significantly reduce the auction revenues. This would raise the risk that the revenues from the auction of the 36 MHz will fall short of the \$2.6 billion Congress has anticipated will be raised as part of the recently enacted defense appropriations legislation.
- FreeSpace has made a proposal to the FCC that would permit any party wishing to provide a commercial service to bid for this guard band spectrum. FreeSpace's proposal would also establish low power guard bands that would protect adjacent-band public safety operations from interference. The size of these guard bands is ideal for the FreeSpace system, as opposed to the remaining portions of 36 MHz which the FCC is considering auctioning off in large 14 or 15 MHz blocks. The FreeSpace proposal for the guard band spectrum represents a "win-win": it not only protects public safety operations from interference, it will lead to significantly higher auction bids for this spectrum and permit this spectrum to be used for exciting new broadband services for consumers.